

The Evolving Federal Agenda for Biometric Research

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September 22, 2003

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Biometrics Applications

- Physical Access
- Logical and System Access
- Audit, Accountability and Tracking
- Immigration / Travel
- Watchlist Identification/Database Recognition
- Surveillance
- Benefits Access
- E-Government

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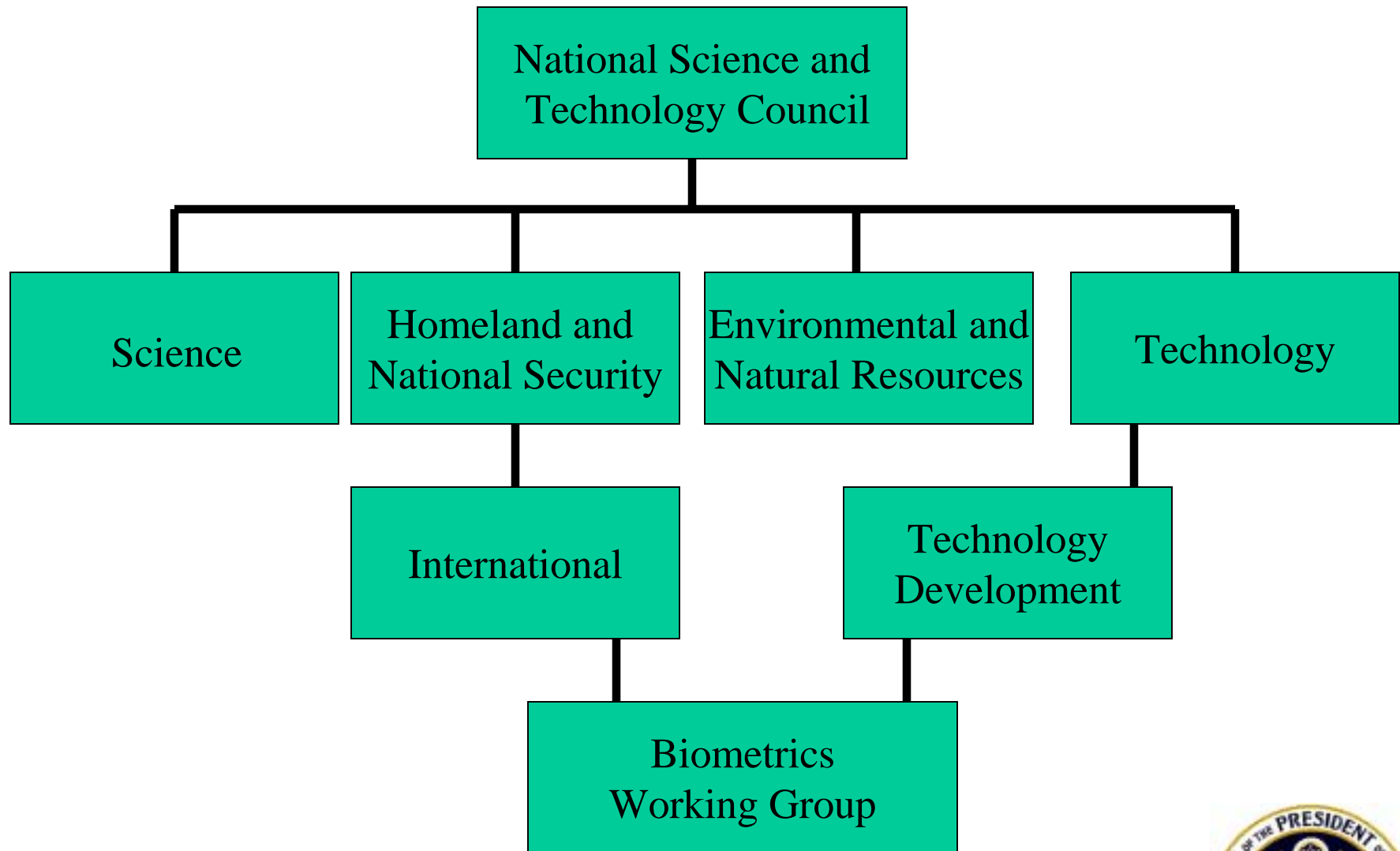


Interagency Coordination Issues

- Information Sharing
- Coordination of Research Agendas
- Gap Analysis
- Funding
- Standards
- Coordination With Private Sector
- International Cooperation
- Privacy Policy

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NSTC Biometrics R&D Interagency Working Group - Active Agencies

- DHS – S&T*
- DHS – USVISIT
- DHS – TSA
- DHS – USSS
- DOJ – FBI
- DOS
- DOD – DARPA
- DOD – BMO
- DOT – FAA
- IC
- NIST
- NSF
- National Labs
- TSWG
- EOP – OSTP*, OMB

* *Co-chair*

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NSTC Biometrics R&D Working Group: Interagency Coordination Process

1. Biometrics R&D Taxonomy (~300 specific research topics)
2. Proposed interagency priorities (125 topics)
3. Voted interagency priorities (27 topics)
4. Synthesized priorities into 4 subgroups for interagency coordination

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4 Subgroups for Interagency Coordination

- I. Biometrics Modalities
- II. Biometrics Systems and Human Interface
- III. Biometrics Fusion, Test Infrastructure, and Evaluation
- IV. Social, Legal, and Privacy Issues

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Objectives of each Subgroups

- Develop a 5-year interagency R&D roadmap focused on the top priorities.
- Identify processes and mechanisms for interagency coordination
 - Data sharing
 - Collaboration on research and funding plans
 - Multiagency research effort using shared resources
- Serve as an interface to other organizations
 - Private sector
 - Standards organizations
 - International research community

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Subgroup I: Modalities

Proposed Chair: DHS

- Face
- Finger
- Iris
- Other biometrics
 - Voice
 - DNA
 - Hand Geometry
- Novel biometrics

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Subgroup II: Biometrics Systems and Human Interface

Proposed Chair: DOD

- Biometric collection methods & technologies
- Scalability
- User perceptions and interaction
- Human-computer interface
- Interoperability and technical standards
- System design and database management

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Subgroup III: Fusion, Test Infrastructure, and Evaluation

Proposed Chair: NIST

- Fusion: Combining match scores
 - multiple biometric modalities
 - multiple records (taken at same time or at different times)
 - multiple algorithms
- Adequate research databases
- Standardized testing methodology
- Meta-analysis
- Metrics (performance, image quality)
- Statistical methods

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Subgroup IV: Social, Legal, and Privacy Issues

Proposed Chair: DOJ

- Existing legal context
 - US citizens, permanent residents, aliens
- Future legislation
- Social perceptions of biometrics
- Privacy architecture
 - In the system design, optimize personal privacy while achieving the desired system functionality.
- Identity management
 - Develop a coherent identity management concept.
 - Social, medical, and legal implications

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International Players

- ICAO NTWG
- IATA SPT & S-Travel
- G8 Roma Lyon Migration Experts
- G8 French-US G8 biometrics experts group.
- TravelScape
- IGC
- European Biometric Forum
- IBIA
- Biometric Consortium
- UK Biometrics Working Group
- US National Biometric Security Project
- US Center for Identification Technology Research
- M1
- SC17
- SC27
- SC37
- OECD WPISP
- WCO
- Interpol
- EU SIS
- APEC
- Group of Four
- US NIST

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International Issues

- MRTD Standards
- Traveler Processing
- PNR APIS
- Privacy Policy
- Watchlist Sharing
- E-Visas
- Public Perception
- Capacity Building
- Future Concepts for Real-time Data Sharing (EITS conference, London)
- Biometric Testing Protocols

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